

***Abstract of the Disclosure***

A low pressure, extended coverage, fire protection sprinkler, e.g., of the upright type, suitable for use in protection of at least extra hazard and high piled storage occupancies, in accordance with the 1999 Edition of NFPA 13, has a body with an internal passageway extending between an inlet end and an opposite outlet end, and a deflector mounted to the body by at least one support arm and disposed in alignment with the axis and generally spaced from the outlet end of the internal passageway. The sprinkler has a predetermined K-factor, e.g., of greater than about 16.0. The sprinkler is configured and arranged to deflect flow of water generally radially outwardly and downwardly of the sprinkler in a predetermined spray pattern. Preferably, the predetermined spray pattern has a generally polygonal shape, e.g., a rectangular shape, when viewed at a predetermined distance below the deflector.